

Structural modifications suggested but not pursued in the SOR, were part of the Corps' System Configuration Study initiated in 1991. This study evaluated major structural modifications at some of the major Federal projects. This study was divided into two phases, the second phase containing several studies including the Lower Snake River Juvenile Salmon Migration Feasibility Study.

The Lower Snake River Juvenile Salmon Migration Feasibility Study, which began in 1994, evaluated the technical, environmental, social and economic effect of potential modifications to the four lower Snake River dams in order to increase the survival of migrating juvenile salmon. This study resulted in the *Lower Snake River Juvenile Salmon Migration Feasibility Report EIS*. The EIS evaluated four alternatives that included: existing system, maximum transport of juvenile salmon, major system improvements, and dam breaching. This EIS was used as a resource document for the FWIP EIS when evaluating hydrosystem modifications, including breaching or drawing down the four lower Snake River dams.

The SOR also did not specifically address non-project measures. Many of these measures emphasized fish and wildlife concerns that had been under consideration in the Region for a decade or more. Some of these measures had been or would be implemented through the Council's program or through ESA requirements. Measures included improving streams and watersheds to restore salmonid spawning and rearing habitat; preserving and enlarging wildlife habitat; and expanding research on hatchery programs and preservation of native fish stocks, and improving hatchery operations.<sup>71</sup>

The SOR EIS noted that actions outside its limited scope (e.g., harvest, hatchery practices, and habitat) would likely require additional NEPA documentation. This FWIP EIS delivers on the assurances provided in the SOR EIS. However, the FWIP should not be interpreted as superseding the SOR. The SOR, including its analyses, is an important source document for this FWIP EIS and remains an important resource for the Region.

Since the SOR EIS was issued (1995), the Snake River wild steelhead, and nine populations of salmon and steelhead in Washington and Oregon have been added to the endangered species list. Consequently, additional and broader efforts were launched in the late 1990s, including the Framework process and the Conceptual Plan/Basinwide Strategy ("All H") process by the Federal Caucus (see Section 2.3.2.4).

### **2.3.2.2 Other Federal Agencies and General Statutory Responsibilities**

The previous discussions describe BPA's responsibilities under the ESA, the CWA, NEPA, and the Regional Act. Equally important regionally, are the other Federal agencies that also have significant statutory responsibilities that bear upon the use of hydro resources for power, and on the responsibilities to administer and protect other resources of the Pacific Northwest. Over time, their roles and their priorities have changed to reflect new information and new policies.

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<sup>71</sup> USDOE/BPA, Corps, and Bureau 1995, pp. 4-23 to 4-25.

The **Bureau of Reclamation** (Bureau) operates 10 water-storage reservoirs in the upper Snake River, 16 reservoirs in the Middle Snake River, and a number of other storage projects that irrigate some 3 million acres of land: 53.9% of all Washington's irrigated land, 41.8% of Idaho's, and 22.5% of Oregon's.<sup>72</sup> Water stored behind the dams is delivered to water users pursuant to contracts between the Bureau and irrigation districts. The Bureau's primary mission of providing water for irrigation has been expanded to include other uses; however, irrigation remains the agency's principal focus. In 1992, the agency redefined its mission from one of water development to one of water management.

The Bureau's projects affect downstream flow and water quality.<sup>73</sup> About 33 million acre feet (Maf) are diverted from the Columbia River for irrigation. About 14 Maf of this total are consumed—not returned to the river. Operation and configuration of the Bureau's irrigation projects can affect fish survival in many ways. Reservoir habitat replaces rivers, upstream passage is blocked, and downstream river flows are reduced by reservoir operations and irrigation diversions. Return flows may be impaired by sediment, agricultural chemicals, or temperature. Aquatic life can be killed by entrainment in diversions or other facilities.

The Bureau plays an important role in obtaining water from the upper Snake River for anadromous fish flows in the lower Snake and Columbia rivers. The Bureau is continuing to seek new sources of water to further strengthen its ability to provide 427 thousand acre-feet (kaf) under all water conditions.<sup>74</sup>

The **U.S. Department of the Army, Corps of Engineers**, operates and maintains 12 projects in the FCRPS. Nine control the lower Snake and Columbia rivers; three provide storage in the upper reaches of both rivers. The Corps has a major role in coordinating the multiple uses of the system. It is responsible for managing flood control storage at all major reservoirs in the Columbia River Basin; maintaining navigation locks and channels to accommodate river transportation; and operating fish passage facilities and the fish transportation program.

Historically, the **Bureau of Land Management** (BLM), in the U.S. Department of the Interior, managed Federal public lands to support mining, grazing, and timber harvesting activities. More recently, the Federal Land Policy and Management Act of 1976 (FLPMA),<sup>75</sup> directs the agency to manage public lands for multiple uses, including fish and wildlife, recreation, watershed protection, and scenic values through the development of resource management plans. FLPMA directs the BLM to develop and maintain land use, or resource management plans, that adhere to multiple use and sustained yield principles. However, the newly recognized uses regularly conflict with historic uses.

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<sup>72</sup> Sprankle, C. 2000.

<sup>73</sup> Information about Bureau of Reclamation project impacts comes from NMFS 2000b.

<sup>74</sup> USDOE/BPA, Corps, Bureau 1999, pp. 3-13.

<sup>75</sup> 43 U.S.C. § 1732 et. seq.

Some timber harvest and grazing practices are important contributors to watershed deterioration.

The **U.S. Forest Service** (USFS), under the U.S. Department of Agriculture, historically focused on managing national forests for timber production purposes. The Agency has also been directed to shift from single-purpose commodity production to multiple-use management of Federal forest lands. The USFS has a mandate to "provide timber for the people" under the Organic Act of 1897.<sup>76</sup> This focus was shifted with the Multiple-Use Sustained-Yield Act of 1960,<sup>77</sup> which expanded the uses for which the USFS must manage National Forest lands to include fish and wildlife resources, recreation, and watershed protection. In 1976, Congress passed the National Forest Management Act to define and clarify national forest management.<sup>78</sup> This act directs the USFS to prepare land and resource management plans (LRMPs) for each national forest. The LRMPs must identify various uses and develop corresponding management guidelines, with the goal of supporting multiple uses and sustained yields. However, neither act prioritizes the specified uses, leaving the Forest Service to balance these often-conflicting uses. The USFS has discretion to make those land management decisions.

Recognizing the need to manage on an ecosystem basis and better coordinate efforts to improve watershed health, the USFS and BLM recently embarked on two efforts. First, in conjunction with the USFS, the BLM released "Rangeland Reform," a plan to better coordinate land management between the agencies on federally-owned rangelands in the West. The plan sets forth suggested changes to rangeland management, including the establishment of national grazing standards, limitations on the preference policy, and modifications to the makeup and authority of rangeland advisory councils authorized under FLPMA. While the BLM has adopted several of the changes in regulations, Congress has failed to enact legislation adopting Rangeland Reform. The USFS and BLM currently operate according to principles set out in their Inland Native Fish Strategy (INFISH) and Interim Strategies for Managing Anadromous Fish-Producing Watersheds in Eastern Oregon, and Washington, Idaho, and Portions of California (PACFISH).<sup>79</sup>

Second, the Northwest Forest Plan represents an attempt to limit conflicts between timber harvest and species protection. Adopted by both the USFS and the BLM, the plan designates land under seven categories, and establishes standards and guidelines to regulate activity within these land areas. Of particular importance in the plan is the aquatic conservation strategy. This strategy, developed primarily to protect salmon and steelhead, consists of four main components: riparian reserves, key watersheds, watershed analysis, and watershed restoration. The aquatic conservation strategy sets forth restoration and maintenance criteria to maintain and improve fish habitat, riparian habitat, and water quality. This is accomplished through limiting potentially harmful

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<sup>76</sup> 16 U.S.C. §§ 473 to 482.

<sup>77</sup> 16 U.S.C. §§ 528 to 531.

<sup>78</sup> 16 U.S.C. §§ 1600 to 1614.

<sup>79</sup> USDA/USFS 1995; USDA/USFS and USDOL/BLM 1995.

activities near key watersheds, including timber harvest, road development, grazing, and mining.

The USFS and the Bureau propose to develop and implement a coordinated, scientifically sound, broad-scale, ecosystem-based management strategy for lands they administer across parts of Idaho, Oregon, Montana, and Washington (approximately 63 million acres). The Interior Columbia Basin Ecosystem Management Project (ICBEMP) Final EIS represents the analysis of the management alternatives for these important ecosystems. As a product of the ICBEMP process, *The Interior Columbia Basin Strategy* has been agreed upon in lieu of a formal basinwide decision.<sup>80</sup>

Several additional Federal agencies have limited land management authority. The **U.S. Department of Agriculture** (USDA), in addition to the USFS operations, manages numerous programs that provide incentives for modified agricultural land use. Two important USDA programs are commodity programs, which were recently replaced by a system of market transition payments, and conservation programs. Conservation programs provide technical expertise, education, and subsidies for a number of programs targeted at environmental quality. In 1985, Congress established the Conservation Reserve Enhancement Program (CREP), a voluntary program that uses financial incentives to encourage agricultural landowners to retire certain lands from production for a period of 10-15 years. In return, the landowners receive rental payments from the USDA. Both Oregon and Washington have entered into Federal-state conservation partnerships under a newly funded phase of CREP that provide for the restoration of up to 100,000 acres of environmentally sensitive land. The state conservation enhancement programs will target revegetation, fencing, and other restoration of riparian areas bordering salmon-bearing streams.

Finally, the **Natural Resources Conservation Service (NRCS)**, also in the U.S. Department of Agriculture, has responsibilities under the Soil and Water Resources Conservation Act of 1977<sup>81</sup> and the Farm Bills of 1994<sup>82</sup> and 1996.<sup>83</sup> The NRCS works with local conservation districts to develop plans uniquely suited to individual landowners. The plans seek to reduce erosion, protect and conserve water resources, protect and enhance wetlands, and protect wildlife habitat.

In an effort to account for changing values and restore the ecological health of the river, Congress enacted several statutes that call for the **Corps** and/or the **Bureau** to consider fish and wildlife when operating water resource development projects. The Water Resources Development Act of 1986<sup>84</sup> requires water resource managers to consider fish and wildlife conservation. The Water Resources Development Act of 1990<sup>85</sup> places

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<sup>80</sup> USDA/USFS and USDO/BLM 2003.

<sup>81</sup> 16 U.S.C. § 2001.

<sup>82</sup> 7 U.S.C. § 6962.

<sup>83</sup> 7 U.S.C. § 7201.

<sup>84</sup> 33 U.S.C. § 2263(a).

<sup>85</sup> 33 U.S.C. § 2316(a).

environmental protection as a "primary mission" of the Corps. However, Congress also stated that environmental protection should not interfere with the Corps' pre-existing duties of navigation improvements and flood control.<sup>86</sup> Finally, in 1992, Congress passed the Reclamation Projects Reauthorization and Adjustment Act,<sup>87</sup> which requires the Bureau to consider environmental protection and water quality at its water resource development projects.

### **2.3.2.3 Current Policies—Conflicting Priorities**

The preceding sections have referenced the primary Federal statutes and implementing regulations; the variety of Federal agencies with interests in fish and wildlife mitigation and recovery efforts and with natural resource management in the Pacific Northwest; and the conflicts that have arisen as mandates change, as new information about species survival emerges, and as competition for project funding increases.

Some of the most critical inconsistencies or conflicts are shown in Table 2.3-2. These conflicts are further complicated by judicial rulings and changes in policy regarding federally-recognized Indian tribes and Indian resources, water resources, state harvest and hatchery policies, and the ESU policy of identifying endangered salmon species by stocks. Also part of the complication are international treaties and other agreements regarding Pacific salmon, and the requirement to consider funding as a resource that must also be managed in the growing era of deregulated energy supply.

**Table 2.3-2: Conflicting Priorities**

Policy Conflicts		
Policies that encouraged settlement and taking of tribal land	<i>Versus</i>	Tribal treaties to preserve certain land for tribes
Policies that allowed depletion of fish habitat and fish runs		Tribal treaty fishing rights
Policies that encouraged resource extraction and production—mining, hydropower development, USFS multiple use, BLM grazing, and homesteading		Later policies for environmental protection, including the ESA and CWA
Acts that define the purposes and priorities of the Corps, Bureau, USFS, BLM, and BPA (in BPA's case, the Regional Act)		The ESA, which requires Federal agencies to operate to protect endangered species
Federal treaties and state policies that allow harvest or indirect take of endangered species		The ESA, which prohibits take
Policies that recognize private property rights		ESA take and critical habitat provisions that may limit private property rights

<sup>86</sup> 33 U.S.C. § 2316(b).

<sup>87</sup> 43 U.S.C. § 371.